

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 February 2001 (22.02.2001)

PCT

(10) International Publication Number
WO 01/12802 A1

(51) International Patent Classification:
C12Q 1/68 // C12N 9/86, C07K 16/00

C12N 15/10.

(71) Applicant (for all designated States except US): GENOP-
SYS [US/US]; 4545 Bain Avenue, Santa Cruz, CA 95062
(US).

(21) International Application Number: PCT/US00/22078

(22) International Filing Date: 11 August 2000 (11.08.2000)

(72) Inventor; and

(75) Inventor/Applicant (for US only): LIETZ, Eric [US/US];
4545 Bain Avenue, Santa Cruz, CA 95062 (US).

(25) Filing Language: English

(26) Publication Language: English

(74) Agent: CHEN, Shirley: Wilson Sonsini Goodrich &
Rosati, 650 Page Mill Road, Palo Alto, CA 94304-1050
(US).

(30) Priority Data:
09/374,274 ✓ 13 August 1999 (13.08.1999) US

(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier application:

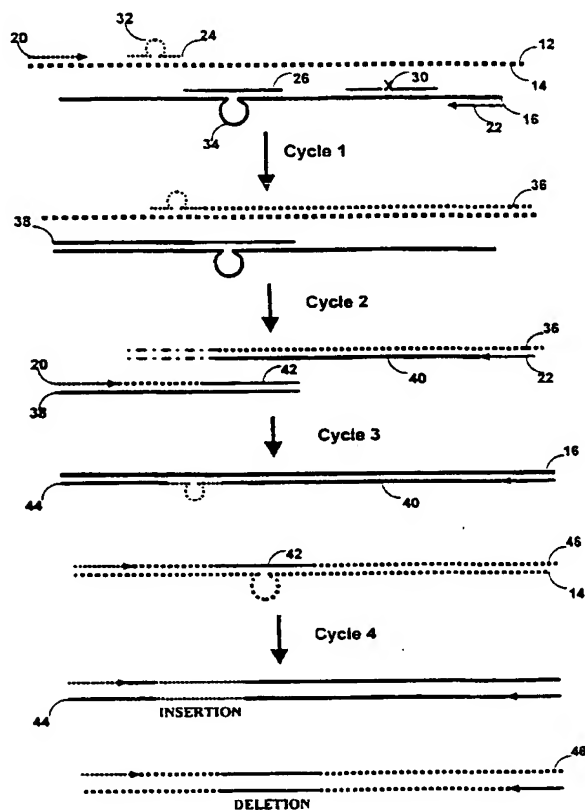
US 09/374,274 (CON)
Filed on 13 August 1999 (13.08.1999)

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

[Continued on next page]

(54) Title: RANDOM MUTAGENESIS AND AMPLIFICATION OF NUCLEIC ACID

(57) Abstract: A method is provided for mutagenizing nucleic
acids and proteins relative to an initial nucleic acid sequence
by the insertion, deletion or substitution of nucleotide(s) in the
target nucleic acid during amplification.



WO 01/12802 A1



(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

— Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.